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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/726,197 | 12/01/2003 | Michael A. Kriss | J-SLA.1171.1 | 3292 |
| 55428 | 7590 | 06/08/2006 | EXAMINER | |
| ROBERT VARITZ 4915 SE 33RD PLACE PORTLAND, OR 97202 | | | ROBINSON, MYLES D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2625 | |

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/726,197 | Applicant(s) KRISS, MICHAEL A. | |
| | Examiner Myles D. Robinson | Art Unit 2625 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: <u>2/1/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The examiner has considered the references listed in the Information Disclosure Statement (IDS) submitted on 12/1/2003 (see attached PTO-1449).

Specification

2. The abstract of the disclosure is objected to because the first sentence is a sentence fragment. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 1** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Regarding claim 1, the phrase "normally limited to" renders the claim indefinite because it is unclear whether the values of 0 – 255 following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Double Patenting

6. **Claims 1 and 4** of this application conflict with claims 1 and 5, respectively, of co-pending **Application No.10/277,384**. 37 CFR 1.78(b) provides that when two or

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more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application.

Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. **Claims 1 and 4** are provisionally rejected on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 5 of co-pending Application No. 10/277,384 in view of **Stenzel et al.** (U.S. Patent No. 5,737,032).

Referring to the instant **claim 1**, the co-pending claim 1 of Application No. 10/277,384 claims a computer-based image-manipulation method for enabling anti-clipping, selective user control over a color-affecting parameter in a computer-presented color image which is intended to be printed, where clipping is defined by the occurrence of an unintended condition, based upon user control input, wherein that parameter assumes a value which lies outside of a desired value range normally limited to values 0-255 in terms of a computer-recognized range of number values, said method comprising furnishing suitable computer-responsive, change-value color controls that are selectively manipulable by a user to effect changes, ultimately, in such a parameter value, thus to vary a certain characteristic of color in the image, and applying predetermined governance over the actual value of the color-affecting parameter whereby, no matter the input control implemented by the user, that actual value is constrained in relation to approaching either one of the two limit values in the mentioned range to an asymptotic-like approach toward such limit value but does not explicitly claim wherein the application of governance over the actual value of the color-affecting parameter including implementing matrix processing of a user-chosen Chroma value.

Stenzel et al. claims implementing matrix processing ("wherein the adjustment circuit includes a matrix multiplier operable to multiply the data values by the coefficients provided to the adjustment circuit by the controller" [*claim 13*]) of a user-chosen ("a controller coupled to the at least one value adjustment circuit and to an input, the controller being response to signals on the input" [*claim 13*]) Chroma ("wherein each of the YCbCr components are applied to the matrix multiplier" [*claim 13*]).

The suggestion/motivation for doing so would have been to allow the user to detect conversion errors that confine the output levels within user specification in the process of making corrections, modifications and artistic adjustments of image parameters, as disclosed and suggested in the prior art **Stenzel *et al.*** (U.S. Patent No. 5,737,032).

Referring to the instant **claim 4**, the co-pending claim 5 of Application No. 10/277,384 claims a computer-based image-manipulation method ('computer-based color-image printing system' [*claim 4*]) for enabling anti-clipping, selective user control over a color-affecting parameter in a computer-presented color image which is intended to be printed ("color-parameter anti-clipping structure operatively associated with said controls... to inhibit any such clipping in the resulting adjusted image sent by said driver ultimately to said printing device for printing" [*claim 4*]), said method comprising:

furnishing suitable computer-responsive, change-value color controls that are selectively manipulable by a user to effect changes, ultimately, in such a parameter value, thus to vary a certain characteristic of color in the image ("user color-adjustment controls furnished by said driver, each enabling... plural-color-parameter adjustments by a user with respect to such a selected and pre-displayed color image" [*claim 4*]), and

applying predetermined governance over the actual value of the color-affecting parameter ("color-parameter anti-clipping structure operatively associated with said controls" [*claim 4*]), whereby, no matter the input control implemented by the user ("regardless of collective and/or interactive nominal effects of parameter adjustments performed by a user" [*claim 4*]), that actual value is constrained in relation to

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approaching either one of the two limit values in the mentioned range to an asymptotic-like approach toward such limit value ("operable in an asymptotic-like manner... to inhibit any such clipping in the resulting adjusted image" [*claim 4*]),

wherein the furnishing of controls includes providing individual controllers each relating to at least one of the collection of color parameters drawn from the list including (a) Red, Green and Blue color offset, (b) Lightness offset, (c) Chroma, and (d) Gamma (*identical to claim 5*) but does not explicitly claim where clipping is defined by the occurrence of an unintended condition, based upon user control input, wherein that parameter assumes a value which lies outside of a desired value range normally limited to values 0-255 in terms of a computer-recognized range of number values and wherein application of predetermined governance includes implementing matrix processing of a user-chosen Chroma value.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to eliminate the definition of clipping and implementing matrix processing of a user-chosen Chroma value since it has been held that the elimination of other aspects of the device does not constitute an invention. *Codex Corporation et al. v. Milgo Electronic Corporation et al.*, 215 USPQ 165 (DC Mass 1982).

These are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1, 2 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Beretta** (U.S. Statutory Invention Registration No. H1506) in view of **Stenzel et al.** (U.S. Patent No. 5,737,032).

Referring to **claim 1**, Beretta discloses a computer-based image-manipulation method (see Fig. 1, memory device 24, processor 22, column 11, line 66 – column 12, line 3, column 12, lines 20 – 36 and column 14, lines 49 – 52) for enabling anti-clipping (column 18, line 35 – column 19, line 5, column 19, lines 14 – 33, column 55, lines 33 – 35, column 56, lines 8 – 21 and 38 – 53), selective user control over a color-affecting parameter (see Fig. 1, GUI 10, Fig. 3, color editing client software 12, Fig. 4, menu area 114, column 13, lines 55 – 62, column 16, lines 22 – 33, column 17, line 45 – column 18, line 33) in a computer-presented color image (column 12, lines 3 – 6 and column 13, lines 12 – 21 wherein color image is stored within bitmap memory 25 in Fig. 1) which is intended to be printed (column 11, lines 48 – 60), where clipping is defined by the occurrence of an unintended condition, based upon user control input (see Fig. 1, user input means 28, column 12, lines 37 – 53, column 13, lines 41 – 51, column 31, lines 16 – 21), wherein that parameter assumes a value which lies outside of a desired value range normally limited to values 0-255 in terms of a computer-recognized range of number values (column 13, lines 10 – 12 wherein computer graphics imagery accepts

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8-bit voltage values is analogous to a desired computer-recognized range of number values ranging 0 – 255 and column 18, line 35 – column 19, line 5, column 19, lines 14 – 33, column 55, lines 33 – 35, column 56, lines 8 – 21 and 38 – 53), said method comprising:

furnishing suitable computer-responsive, change-value color controls that are selectively manipulable by a user to effect changes, ultimately, in such a parameter value, thus to vary a certain characteristic of color in the image (see Fig. 1, GUI 10, Fig. 3, color editing client software 12, Fig. 4, menu area 114, column 13, lines 55 – 62, column 16, lines 22 – 33, column 17, line 45 – column 18, line 33) but does not explicitly disclose the method wherein applying predetermined governance over the actual value of the color-affecting parameter, including implementing matrix processing of a user-chosen Chroma value, whereby, no matter the input control implemented by the user, that actual value is constrained in relation to approaching either one of the two limit values in the mentioned range to an asymptotic-like approach toward such limit value.

Stenzel et al. disclose the method further wherein applying predetermined governance over the actual value of the color-affecting parameter (column 5, lines 26 – 29 and column 6, line 24 – column 7, line 4), including implementing matrix processing (see Fig. 2, color space converter 36, lookup tables 42, column 8, line 43 – column 10, line 15) of a user-chosen Chroma value (see Fig. 2, microcontroller 40, column 5, line 53 – column 6, line 11, column 8, lines 43 – 58 and column 10, lines 16 – 37 wherein system controller 40 is under user control and sets coefficients that regulate Chroma values C_r , C_b), whereby, no matter the input control implemented by the user, that

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actual value is constrained in relation to approaching either one of the two limit values in the mentioned range to an asymptotic-like approach toward such limit value (column 5, lines 26 – 29, column 5, line 53 – column 6, line 11, column 6, line 24 – column 7, line 4, column 9, line 63 – column 10, line 15 wherein clipping takes when the device limits the output level if so desired by the user to within high/low limits).

Beretta and Stenzel are combinable because they are both from the same field of endeavor, being digital image color correction systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to include matrix processing of user-regulated chrominance values along with a digital image color correction system. The suggestion/motivation for doing so would have been to allow the user to detect conversion errors that confine the output levels within user specification in the process of making corrections, modifications and artistic adjustments of image parameters, as suggested by Stenzel et al. (column 2, lines 47 – 59, column 4, lines 15 – 40 and column 6, line 24 – column 7, line 4).

Referring to **claim 2**, Stenzel et al. disclose the method further wherein the application of governance involves using an algorithm into which a selected, matrix-processed Chroma value (column 9, lines 31 – 62 and column 10, lines 16 – 37 wherein system controller 40 is under user control and sets coefficients that regulate Chroma values Cr, Cb) is directly inserted (see Fig. 2, color space converter 36, lookup tables 42, column 8, line 43 – column 10, line 15 wherein matrix multiplication is analogous to an algorithm).

Referring to **claim 4**, Beretta discloses the method further wherein the furnishing of controls includes individual controllers (column 21, lines 39 – 60, column 42, lines 14 – 56 wherein display window 112 displays color space 540 comprising bars 546, 548 representing palette colors having values ranging from 0 – 100 and are individually manipulated within GUI 10) each relating to at least one of the collection of color parameters drawn from the list including (a) Red, Green and Blue color offset, (b) Lightness offset (column 20, line 60 – column 21, line 23, column 53, lines 5 – 18), (c) Chroma, and (d) Gamma.

10. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Beretta** (U.S. Statutory Invention Registration No. H1506) in view of **Stenzel et al.** (U.S. Patent No. 5,737,032) and further in view of **Acharya** (U.S. Patent No. 6,628,827).

Referring to **claim 3**, Stenzel et al. disclose the method further wherein the application of governance involves using an algorithm into which a selected, matrix-processed Chroma value (column 9, lines 31 – 62 and column 10, lines 16 – 37 wherein system controller 40 is under user control and sets coefficients that regulate Chroma values Cr, Cb) is directly inserted (see Fig. 2, color space converter 36, lookup tables 42, column 8, line 43 – column 10, line 15 wherein matrix multiplication is analogous to an algorithm) neither Beretta nor Stenzel et al. explicitly disclose the method wherein the application of governance involves using an algorithm into which a cubic term.

Acharya discloses the method further wherein the application of governance involves using an algorithm into which a cubic term (column 2, lines 5 – 20, 56 – 62, column 3, line 45 – column 4, line 4).

Beretta, Stenzel and Acharya are combinable because they are both from the same field of endeavor, being digital image color correction systems. At the time of the invention, it would have been obvious to one of ordinary skill in the art to include a bi-cubic interpolation of color components along with a digital image color correction system. The suggestion/motivation for doing so would have been to utilize the well-known method of bi-cubic interpolation to generate upscaled color digital images comprising three planes as well as to enhance the efficiency and quality when upscaling color images, as suggested by Acharya (column 1, lines 28 – 39, column 2, lines 5 – 20 56 – 62 and column 3, line 45 – column 4, line 4).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Stokes *et al.* (U.S. Patent No. 6,977,661) discloses a system and method for applying color management on captured images.

Cui *et al.* (U.S. Patent No. 6,956,581) discloses a gamut mapping algorithm for business graphics.

Barton *et al.* (U.S. Patent No. 6,266,103) discloses methods and apparatus for generating custom gamma curves for color correction equipment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Myles D. Robinson whose telephone number is (571) 272-5944. The examiner can normally be reached on M-F 8:30am-5:00pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

5/22/06 MDR

MDR


MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600